The amount of air necessary for the complete combustion of this gas is calculated thus :—

(5 as.	O mjuiivd. Cubic mot ro.	OOij yioltliHl.	N	UO vapour.
Cubic, im't.re. CO. 0-41 CO 1/45	0-725	Cubic moli'ii. 0-1 1 IMf)	(Uibi<* nu'.tro.	Cubic mol.ro.
II 0-41	0-205	„.,.,„		0*41
N 4-38		carrying 1-86	4-38 3-49	f (HI 0*53
6-65	0-930		f 7*87	
6"65 cubic moires, gas yielding) products of combustion j ILX) from gas				
Grand total products of com-) bustkm J		1-HG	-1- 7-87	f- 0*94

The amount of nitrogen from combustion with the theoretical amount of air is equal to 7*H7 cubic metres, practically it will bel-3x7-B!)=10-2!J cubic metres N (as before, p. 80) of which, however, there is til ready present in the gas 4:88 cubit? metres, thus leaving 5*85 cubic metres N which is accompanied by 1*56 cubic metre (), representing 7*41 cubic metres air, for 6*65 cubic mokes gas ; or the practical amount of gas for 1 cubic*, 7"41 metre gas will be —~-)j==l-ll cubic metre dry or 1'11 + ril t)"U<)

XO'026=1'14 cubic metre damp air (air taken at 80° saturated with moisture).

It shows that with, deterioration of the quality of the gas the air requirement goes down largely, since in the second instance for 1 cubic metre gas only about (50 per cent, of tbo air is required winch is necessary for good gas.

Tt will, therefore, bo retained in view that with improvement in the gas quality of present installations the air requirement must be correspondingly raised, and that